

Appl. No. 10/038,006
 Amdt. dated August 10, 2004
 Reply to Office Action of June 10, 2004

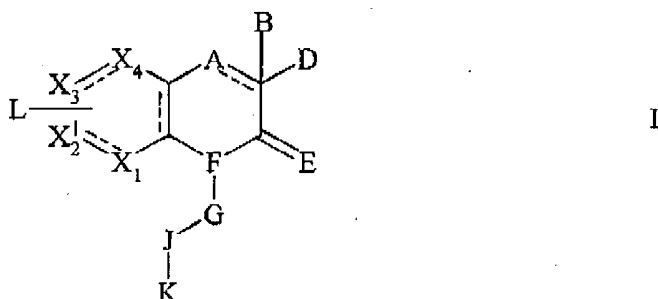
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A compound according to Formula I



or stereoisomers or pharmaceutically acceptable salts, esters, or amides thereof, wherein:

A is selected from NCH_2 , N(alkyl)CH_2 , CH_2N , $\text{CH}_2\text{N(alkyl)}$;

B is selected from H, $(\text{C}_{3-20})\text{alkyl}$, cycloalkyl, heteroalkyl, cycloalkylalkyl, heteroalkylalkyl, aryl, arylalkyl, heterocycle, heterocycloalkyl, each optionally substituted with R_1 and R_2 ;

D is selected from H, $(\text{C}_{3-20})\text{alkyl}$, cycloalkyl, heteroalkyl, cycloalkylalkyl, heteroalkylalkyl, aryl, arylalkyl, heterocycle, heterocycloalkyl, each optionally substituted with R_1 and R_2 ;

E is absent or selected from O, S, NH;

F is selected from N, NCH_2 , CH_2N ;

G is absent or selected from alkyl, alkyl interrupted by one or more heteroatoms, cycloalkyl, cycloalkyl interrupted by one or more heteroatoms;

J is absent or selected from aryl or heterocycle each optionally substituted with R_1 and R_2 ;

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K is absent or selected from an alkyl, alkyl interrupted by one or more heteroatoms, cycloalkyl interrupted by one or more heteroatoms, cycloalkylalkyl interrupted by one or more heteroatoms, each optionally substituted with R_1 and R_2 ;

L is selected from H, chlorine, fluorine, bromine, iodine, OH, O(alkyl), amine, alkyl, fluoroalkyl, amide, NO_2 , SH, $\text{S(O)}_n(\text{alkyl})$, SO_3H , SO_3alkyl , aldehyde, ketone, acid, ester, urea, Oalkylamide, Oalkylester, Oalkylacid, Nalkylacid, alkylamine, alkylamide, alkylketone, alkylacid, alkylester, alkylurea, Nalkylamide, Nalkylester, NC(=O)alkyl , NC(=O)aryl , NC(=O)cycloalkyl , $\text{NC(=O)cycloalkylalkyl}$, NC(=O)alkylaryl , R_1 , R_2 , nitrile;

R_1 is selected from H, amine, alkylamine, amide, C(=NH)NHNH_2 , alkylC(=NH)NHNH_2 , C(=NH)NHOH , alkylC(=NH)NHOH , NHC(=NH)NH_2 , alkylNHC(=NH)NH_2 , C(=S)NH_2 , alkylC(=S)NH_2 , C(=NH)alkyl , alkylC(=NH)alkyl , $\text{C(=NR}_3\text{)N(R}_4\text{)(R}_5\text{)}$, $\text{alkylC(=NR}_3\text{)N(R}_4\text{)(R}_5\text{)}$;

R_2 is selected from H, chlorine, fluorine, bromine, iodine, OH, Oalkyl, amine, alkylaldehyde, alkylamide, alkylester, alkylketone, alkylacid, Oalkylamide, Oalkylacid, Oalkylester, aninealkylacid, aminealkylamide, aminealkylester, NC(=O)alkyl , NC(=O)aryl , NC(=O)cycloalkyl , NC(=O)alkylaryl , alkylamine, amide, aldehyde, ester, ketone, NO_2 , SH, $\text{S(O)}_n(\text{C}_{1-10}\text{alkyl})$, SO_3H , SO_3alkyl , CHO, acid, alkyl, C(=NH)alkyl , C(=NH)NHNH_2 , alkylC(=NH)NHNH_2 , C(=NH)NHOH , alkylC(=NH)NHOH , NHC(=NH)NH_2 , alkylNHC(=NH)NH_2 , C(=S)NH_2 , alkylC(=S)NH_2 , alkylC(=NH)alkyl , $\text{C(=NR}_3\text{)N(R}_4\text{)(R}_5\text{)}$, $\text{alkylC(=NR}_3\text{)N(R}_4\text{)(R}_5\text{)}$;

R_3 , R_4 , and R_5 are a hydrogen atom, alkyl group having 1 to 4 carbon atoms optionally interrupted by a heteroatom, or R_4 and R_5 are bonded to form $-(\text{CH}_2)_p\text{-W-(CH}_2)_q\text{-}$, wherein p and q are an integer of 2 or 3, a certain position on the methylene chain is unsubstituted or substituted by an alkyl group having 1 to 4 carbon atoms, W is a direct bond, $-\text{CH}_2\text{-}$, $-\text{O-}$, $-\text{N(R}_6\text{)-}$, or $-\text{S(O)}_r\text{-}$ wherein R_6 is H or alkyl, and r is 0 or 1 or 2;

n is selected from 0, 1, 2;

X_1 is C or N;

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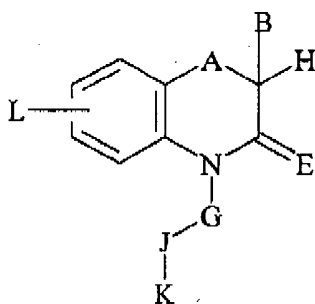
X₂ is C or N;

X₃ is C or N;

X₄ is C or N; and

--- represents an optional additional bond when A is N.

Claim 2 (currently amended): A compound according to Claim 1 wherein the ~~compounds~~ compound is according to Formula II



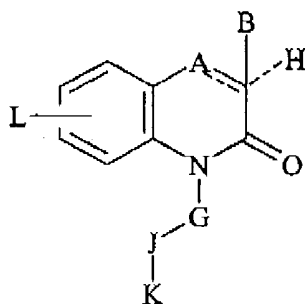
II

or stereoisomers or pharmaceutically acceptable salts, ~~esters, or amides, or prodrugs~~
thereof, wherein A, B, E, G, J, K, and L are as defined above.

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Claim 3 (currently amended): A compound according to Claim 1 wherein the compound is according to Formula III



III

or stereoisomers or pharmaceutically acceptable salts, esters, or amides, or products thereof, wherein A is N or Nalkyl, and B, G, J, K, L, and --- are as defined above.

Claims 4 - 15 (cancelled)

Claim 16 (original): A method for the treatment or prophylaxis of thrombotic disorders in a mammal comprising administering to said mammal an effective amount of a compound according to Claim 1.

Claim 17 (original): A method according to Claim 16, wherein said disorder is venous thrombosis.

Claim 18 (original): A method according to Claim 16, wherein said disorder is arterial thrombosis.

Claim 19 (original): A method according to Claim 16, wherein said disorder is pulmonary embolism.

Claim 20 (original): A method according to Claim 16, wherein said disorder is myocardial infarction.

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Claim 21 (original): A method according to Claim 16, wherein said disorder is cerebral infarction.

Claim 22 (original): A method according to Claim 16, wherein said disorder is restenosis.

Claim 23 (original): A method according to Claim 16, wherein said disorder is cancer.

Claim 24 (original): A method according to Claim 16, wherein said disorder is angina.

Claim 25 (original): A method according to Claim 16, wherein said disorder is diabetes.

Claim 26 (original): A method according to Claim 16, wherein said disorder is heart failure.

Claim 27 (original): A method according to Claim 16, wherein said disorder is atrial fibrillation.

Claim 28 (original): A pharmaceutical formulation comprising a compound of Claim 1 admixed with a carrier, diluent, or excipient.

Claim 29 (original): A pharmaceutical formulation comprising a compound of Claim 2 together with a carrier, diluent, or excipient.

Claim 30 (cancelled)

Claim 31 (original): A method for inhibiting serine proteases comprising administering to a mammal an effective amount of serine protease inhibitor of Claim 1.

Claim 32 (original): A method according to Claim 31, wherein said serine protease is factor Xa.